Electronic Version
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LOWPASS FILTER FORMED IN MULTI-LAYER CERAMIC

Abstract

A laminated lowpass filter includes nine dielectric substrates arranged in a stack. The outer surfaces of the stack are ground planes. From top to bottom, top four layers forms a first MIM capacitor, a spiral four-port "mutually coupled coils" (MCCs) structure is placed in the middle, and then the second MIM capacitor is formed on bottom four layers. The first port (P1") of the MCCs is connected to the first MIM capacitor. The fourth port (P4") of the MCCs is connected to the second MIM capacitor. The second and third ports (P2", P3") constitute input and output of the laminated lowpass filter on the sides of the stack.